

DETAILED ACTION

Examiner Notes

1. Any objections and/or rejections made in the previous action, and not repeated below, are hereby withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
3. Claims 10, 14-17, 19, 20, 22-26 and 28-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Durazzani et al. UK Patent Application 2333300. (hereafter referred to as Durazzani) and Cinello et al. European Patent Publication No. EP 219115 (hereafter referred to as Cinello).

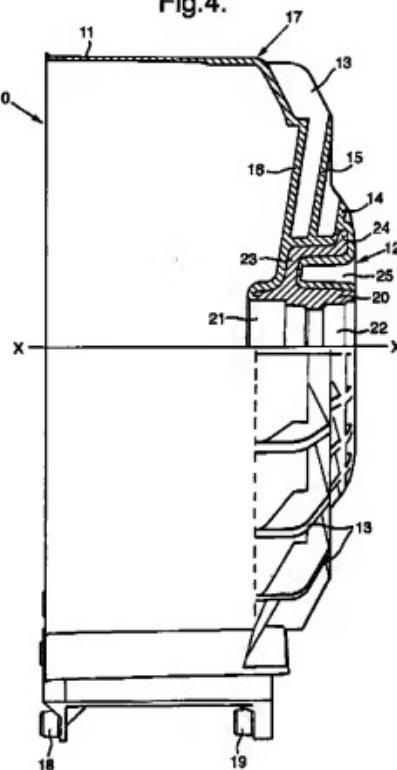
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4. Durazzani teaches a plastic tub (11), (12) for a domestic clothes washing machine produced by injection molding the tub directly on a metal bearing hub (shell) (20). (Pg. 3, line 22-Pg. 4, line 9, lines 19-21, Fig. 4) Durazzani also teaches that reinforcing ribs (13) and rings (14, 15, 16) are required in the base of the tub (12) for resistance to the mechanical stresses which are transmitted from the rotary drum to the tub during operation of the clothes washing machine. (Pg. 4, lines 24-27)

5. Durazzani teaches what

has been recited above but is silent regarding producing the plastic member surrounding the bearing hub from a different material as the rest of the washing machine tub and performing the injection molding of the washing machine tub in two steps.

Fig. 4.



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6. Cinello teaches a laundering tub characterized in that the two bearings and a spacer element of the tub are disposed within the sleeve made of a plastic material of higher mechanical resistance than that of the rest of the tub. (Col. 1, lines 52-55) The spacer element is an injection molded plastic element and the sleeve is injection molded around the two bearings and the spacer element after which the rest of the tub is injection molded around the sleeve with the bearings and spacer element disposed therein. (Col. 1, line 57-Col. 2, line 3) Only the sleeve of the invention has to be made of an expensive plastic material capable of sustaining the mechanical stresses acting on the bearings while the rest of the tub can be made of an inexpensive plastic material. (Col. 2 lines 7-11) The tub of the invention is adapted to contain a rotatable drum. (Col. 2, line 39) The finished tub is thus made of two different types of plastic material, namely, a more expensive first type having a high resistance against mechanical stresses, only a limited amount of which is employed for injection molding the portion supporting the drive shaft of the drum, and a less expensive second type having a lesser resistance against mechanical stresses than the previous one, which is injection molded about the plastic material of the first type at a sufficient amount for forming the remainder of the tub. (Col. 3, lines 40-49)

7. Both Durazzani and Cinello are directed to washing machine tubs. Cinello teaches that it was known in the art at the time the invention was made to utilize stronger plastic material in washing machine tub parts that are subjected to higher mechanical stresses acting on them than the plastic used for the remainder of the tub. Durazzani also identified the importance of providing increased reinforcement in the

area of the tub that undergoes increased mechanical stress. One of ordinary skill in the art at the time the invention was made would have been motivated to produce the rear area of the tub of Durazzani that undergoes increased mechanical stress from a different, stronger material than the remainder of the tub as taught by Cinello in order to increase the resistance of this region to mechanical stress and lower production cost by decreasing the amount of more expensive, stronger plastic necessary for the tub.

8. Regarding claims 10, 19, 22-25, 28 and 30: It would have been obvious to one having ordinary skill in the art at the time the invention was made to have produced the tub of Durazzani by utilizing a two step injection molding process in which the reinforced areas of the tub (12) were produced first from a stronger plastic followed by injection molding the remainder of the tub (11) from a weaker, less expensive plastic material. Such a modification of Durazzani by the teachings of Cinello would have produced the article claimed in claims 10, 19, 22-24 and 30 by the same method as claimed in claims 25 and 28.

9. Regarding claims 14-16: As can be seen in Fig. 4 of Durazzani (region between reference characters (21) and (23)), the plastic material of the tub overlaps the upper lip of the bearing shell. Therefore, when the portion of the tub of Durazzani in contact with the bearing shell is made with a stronger plastic than the remainder of the tub, the modified invention of Durazzani obviates the limitation that the plastic member cover a portion of the inside surface of the bearing shell as recited in claim 14. As shown in Fig. 4, the plastic of the tub clearly covers the entire outside surface of the bearing shell as claimed in claim 16. The ribs, (14) and (15) in Fig. 4, disclosed by Durazzani are

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interpreted to obviate the limitation that the plastic member is formed with a plurality of ribs as recited in claim 15.

10. Regarding claim 17: It would have been obvious to one having ordinary skill in the art at the time the invention was made to have configured the section of the tub comprising stronger material to be minimized in order to lessen the amount of expensive material being used while still providing stronger material surrounding the bearing shell. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have some minor portion of the bearing shell covered with the less expensive material used for the remainder of the tub. This obvious configuration of Durazzani would have produced the invention claimed in claim 17.

11. Regarding claims 20, 26 and 29: As shown in Fig. 4 of Durazzani, the employment of a projection (23) on the bearing hub increases the engagement between the plastic end disc (12) and the bearing hub. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have employed this same technique of providing a projection on the end disc (12) that the remainder of the tub could be injection molded around in order to increase the engagement between the materials for the end disc and the remainder of the tub (11). The use of this technique would have produced the same article claimed in claim 20 by the same method claimed in claim 26. It would also have been obvious to one having ordinary skill in the art at the time the invention was made to have allowed such a projection to at least partially cure so that the structural integrity of the projection would be maintained during the second

injection molding step. This logical modification would have produced the same method as claimed in claim 29.

12. Regarding claims 31-34: Durazzani clearly recites a bearing hub and therefore discloses a bearing shell that is "adapted to receive" bearings.

Response to Arguments

13. Applicant's arguments filed 3/5/10 have been fully considered but they are not persuasive.

14. Applicant has asserted on page 12 of the remarks that since Cinello discloses the use of plastic as an alternative to metal for fabricating bearing shells and that Cinello teaches away from using the well known material of metal for bearing shells. The examiner was unable to locate the passage provided on page 12 of the remarks by applicant to support this contention in the reference of Cinello. Furthermore, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...." *In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004). Applicant asserts that the examiner must consider the reference in its entirety. The examiner contends that the teachings of Cinello have indeed been considered as a whole. However, applicant appears to infer that the consideration of a reference as a whole requires that a combination of

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references utilize all of the teachings of both references, which is not accurate. It is noted that while Cinello does not disclose all the features of the present claimed invention, Cinello is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a *certain* concept, namely, it was known in the art at the time the invention was made to utilize stronger plastic material in washing machine tub parts that are subjected to higher mechanical stresses acting on them than the plastic used for the remainder of the tub and in combination with the primary reference, discloses the presently claimed invention.

15. Applicant asserts on pages 12 and 13 that the combination of Durazzani with Cinello would require that Durazzani be modified to include a plastic bearing shell. The examiner is not persuaded that it is required to apply all of the teachings of Cinello to the invention of Durazzani. While applying a metal bearing shell to the invention of Cinello may indeed render the Cinello reference unsuitable, applying the teachings of Cinello to Durazzani does not require that Durazzani include each and every feature of the teachings disclosed by Cinello. The concept of utilizing two different material depending on the mechanical stresses endured for the production of plastic washing machine tubs is clearly enumerated in Cinello and provides the means and motivation for one of ordinary skill in the art to modify and improve the invention of Durazzani.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE JACOBSON whose telephone number is (571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-7 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.